

Stealth™ 5300 Series

DIGITAL MOBILE RADIO

531X – VHF
534X – UHF
538X – 800 MHz

APCO Project 25 Compatible Digital Radio



The Stealth™ Mobile Digital Radio provides an APCO 25 compatible interface to meet the needs of federal, state, and local government users. With backwards compatibility, the Stealth mobile offers the capacity to communicate in both narrow and wide channels and operate in either digital or analog mode. This allows the Stealth mobile to effectively switch from communication between APCO 25 approved equipment to conventional FM equipment with one simple turn of the channel knob.

Complete APCO 25 Common Air Interface offers the capacity to operate with other APCO 25 compatible equipment.

Backwards Compatibility provides the flexibility to communicate in both narrow and wide bandwidth analog

channels, in addition to narrowband digital.

Multiple Protocol Compatibility allows the Stealth mobile to be customized to operate with a variety of radio protocols, including APCO 25, SmartZone™, SmartNet™, and Multi-Net® II.

Field Programmable furnishes an authorized user the ability to reprogram frequencies, CTCSS, DCS, and talkgroups into the radio's memory.

Alphanumeric Display provides a backlit visual display of the radio's channel or talkgroup on the front of the radio.

DTMF Compatibility allows the user to operate remote control devices or access telephone interconnect systems.

Rotary Knobs mounted on the front of the Stealth mobile provide easy channel and volume adjustment.

Multi-System Select allows the radio to be programmed for access into both digital and analog radio systems. In addition, the Stealth mobile can be configured to support conventional, analog, digital narrow and wideband trunked systems.

Analog Voice Privacy secures communication while operating in the analog mode.

Motorola® DES and DES-XL™ Option allows compatibility with high-tier Motorola encrypted radio systems.

High Performance Receiver and Transmitter Specifications

 **EF Johnson®**
A Product of **TRANSCRIPT®**

SmartZone™
Digital

APCO 25
Conventional

SmartNet™
SmartZone™

Multi-Net® II

Conventional

STEALTH™ 5300 SERIES

DIGITAL MOBILE RADIO

All Specifications are typical and subject to normal manufacturing tolerances.

MODEL NUMBER		531X	534X	538X
GENERAL		VHF	UHF	800 MHz
Frequency Range	Range 1 Range 2	136–174 MHz —	403–470 MHz 450–512 MHz	806–870 MHz —
Zones/Channels		16/16		
Mounting		Dash-mount (remote mount optional)		
Input Voltage		13.6 VDC (negative ground)		
Dimensions (HxWxD)		2.1" x 7.15" x 8.3" (5.3 cm x 18.2 cm x 21.1 cm)		
Weight		5 lbs. 4 oz. (2.38 kg)		
Case		Metal—black		
Temperature Range		–30°C to +60°C		
Current Drain @ 13.8V:	Standby Received @ Rated Audio Transmit @ Rated Power	0.6 A 2.7 A 13.2 A		
Channel Spacing		12.5, 15, 25, 30 kHz	12.5, 25 kHz	12.5, 25 kHz
Voice Digital Mode:	Voice Coding Frame Re-sync Interval Error Correction Method	IMBE™ 4.4 kbps 180 msec RS, Golay, Hamming		
FCC Type Acceptance Number		Pending	Pending	Pending
Canada		Pending	Pending	Pending

RECEIVER (Measurements per TIA/EIA 603 Standards)

Sensitivity:	Digital Mode: 5% BER	0.35 µV	
	Analog Mode: 12 dB SINAD	0.35 µV	
Selectivity		–75 dB	
Spurious & Image Rejection		–75 dB	
Intermodulation	–75 dB	–73 dB	–73 dB
Audio Output Power		5W	
Audio Distortion (at 1000 Hz)		<3%	
Frequency Stability (–30°C to +60°C)	±2.5 ppm	±2.5 ppm	±1.5 ppm
Maximum Frequency Separation		Full bandsplit	

TRANSMITTER (Measurements per TIA/EIA 603 Standards)

RF Power Output	25W–50W variable	10W–40W variable	10W–35W variable
Spurious & Harmonic Emissions	–70	–70	–60
FM Hum & Noise (Wideband)		–45 dB	
Emission Designators	16K0F3E, 11K0F3E, 8K10F1E, 20K0F1E		
Audio Distortion (at 1000 Hz)		<3%	
Audio Response (1000 Hz ref.)		300–3000 Hz	
Frequency Stability (–30°C to +60°C)		±2.5 ppm	
Modulation Limiting:	Wideband Analog	5 kHz	5 kHz
	Narrowband Analog	2.5 kHz	2.5 kHz
	Digital	2.5 kHz	—
Maximum Frequency Separation		Full bandsplit	

ENVIRONMENTAL SPECIFICATIONS

Environment	Mil Spec 810C	Mil Spec 810D	Mil Spec 810E
	Method Procedure	Method Procedure	Method Procedure
Low Pressure	500.1 I	500.2 I	500.3 II
High Temp.	501.1 I, II	501.2 I, II	501.3 I, II
Low Temp.	502.1 I	502.2 I	502.3 I
Temp. Shock	503.1 I	503.2 I	503.3 I
Solar Radiation	505.1 I	505.2 I	505.3 I
Rain/BlowRain	506.1 I, II	506.2 I, II	506.3 I, II
Humidity	507.1 II	507.2 II(5)	507.3 II(5)
Salt Fog	509.1 I	509.2 I	509.3 I
Dust and Sand	510.1 I	510.2 I	510.3 I, II
Vibration	514.2 VIII(W)	514.3 I(10)	514.4 I(10)
Shock	516.2 I, II, V	516.3 I, IV, VI	516.4 I, IV, VI

ACCESSORIES

- 12-Watt External Speaker
- DTMF Microphone
- Remote-Mount Conversion Kit
- Lockable Mounting Tray
- Spare Control Head Kit

PROJECT 25 ENCRYPTION OPTIONS

Encryption Algorithm Capacity	1
Encryption Keys/Radio	16
Encryption Frame	180 msec
Re-sync Interval	180 msec
Code Key Generator	External Keyloader
Encryption Key Tag Capacity Per System	65,000
Encryption Type	APCO 25 DES
Code Key Initialization	Internal pseudorandom generator

SECURENET™ ENCRYPTION OPTIONS

Encryption Algorithm Capacity	2
Encryption Keys/Radio	16
Code Key Generator	External Keyloader
Encryption Key Tag Capacity Per System	65,000
Encryption Type	DVP™, DVP-XL™, DES, DES-XL™
Code Key Initialization	Internal pseudorandom generator

SCRAMBLING (Embedded CVP® Technology)

Scrambling Keys/Radio	16
Scrambling Keying	External computer
Compatibility	SC20-460 analog scrambler
OTAR	FlashCall™
*Pending SC20-DES FIPS 140-1	

* Call for availability

This device has not been authorized as required by the rules of the Federal Communications Commission. This device may not be delivered until authorization is obtained.

Form S355 4/98 (First Issue) Printed in U.S.A. Specifications subject to change without notice.

Viking Head/EJohnson logo®, Transcript®, Stealth™, Multi-Net®, CVP®, and FlashCall™ are trademarks of Transcript International, Inc. SmartNet™, SmartZone™, Motorola®, SecureNet™, DVP™, DVP-XL™, DES-XL™ are trademarks of Motorola, Inc. IMBE™ is a trademark of Digital Voice Systems, Inc.

© Copyright 1998 Transcript International, Inc.

TRANSCRIPT®
4800 NW 1st Street
Lincoln, NE 68521-9918
Phone: 402-474-4800
Fax: 402-474-4858
www.transcript.com